

**What is claimed is:**

- 1                   1. An apparatus for classifying a call to a destination  
2    endpoint comprising:  
3                   a receiver for receiving information from the  
4    destination endpoint;  
5                   a first detector for determining a first classification in  
6    response to the information received from the destination  
7    endpoint;  
8                   a second detector for determining a second  
9    classification in response to the information received from the  
10   destination endpoint;  
11                  a third detector for determining a third classification in  
12   response to the information received from the destination  
13   endpoint; and  
14                  an inference engine for determining a call  
15   classification of the destination endpoint in response to the first,  
16   second, and third classifications.
- 1                   2. The apparatus of claim 1 further comprises a fourth  
2    detector for determining a fourth classification in response to  
3    the information received from the destination endpoint; and  
4                   the inference engine further responsive to the fourth  
5    classification for determining the call classification of the  
6    destination endpoint.

1           3. The apparatus of claim 1 wherein the first detector  
2 is a tone detector.

1           4. The apparatus of claim 1 wherein the second  
2 detector is an energy analyzer.

1           5. The apparatus of claim 1 wherein the third detector  
2 is a zero crossing analyzer.

1           6. The apparatus of claim 2 wherein the fourth  
2 detector is an automatic speech recognizer.

1           7. The apparatus of claim 6 further comprises a  
2 recorder for recording the received information and for updating  
3 the inference engine.

1           8. The apparatus of claim 2 wherein the first detector  
2 is a tone detector, the second detector is an energy analyzer,  
3 and third detector is a zero crossing analyzer;

1           9. The apparatus of claim 8 wherein the fourth  
2 detector is an automatic speech recognizer.

1           10. A call classifier for classifying a call to a  
2 destination endpoint comprising:  
3           a circuit for receiving information from the destination  
4 endpoint and for processing the received information;  
5           a tone detector for determining a first classification in

6 response to the processed information;  
 7 a energy analyzer detector for determining a second  
 8 classification in response to the processed information;  
 9 a zero crossing analyzer detector for determining a  
 10 third classification in response to the processed information;  
 11 and  
 12 an inference engine for determining a call  
 13 classification of the destination endpoint in response to the first,  
 14 second, and third classifications.

1 11. The call classifier of claim 10 further comprises a  
 2 recorder for recording the received information and for updating  
 3 the inference engine.

1 12. A call classifier for classifying a call to a  
 2 destination endpoint comprising:  
 3 a circuit for receiving information from the destination  
 4 endpoint and for processing the received information;  
 5 a tone detector for determining a first classification in  
 6 response to the processed information;  
 7 a energy analyzer detector for determining a second  
 8 classification in response to the processed information;  
 9 a zero crossing analyzer detector for determining a  
 10 third classification in response to the processed information;  
 11 an automatic speech recognition unit for determining a  
 12 fourth classification; and

13                    an inference engine for determining a call  
 14                    classification of the destination endpoint in response to the first,  
 15                    second, third and fourth classifications.

1                    13. The call classifier of claim 12 further comprises a  
 2                    recorder for recording the received information and for updating  
 3                    the inference engine.

1                    14. The call classifier of claim 12 wherein the  
 2                    automatic speech recognition unit is determining words.

1                    15. The call classifier of claim 12 wherein the  
 2                    automatic speech recognition unit is determining phrases.

1                    16. The call classifier of claim 15 wherein the  
 2                    automatic speech recognition unit is executing a Hidden  
 3                    Markov Model.

1                    17. A method for classifying a call to a destination  
 2                    endpoint, comprising the steps of:

3                    receiving information from the called destination  
 4                    endpoint;

5                    performing a first classification of the received  
 6                    information;

7                    performing a second classification of the received  
 8                    information;

9                    performing a third classification of the received

10 information; and  
 11 determining a call classification of the called  
 12 destination endpoint from the first, second, and third  
 13 classifications.

1 18. The method of claim 17 further comprises the  
 2 step of performing a fourth classification of the received  
 3 information; and  
 4 the step of determining further responsive to the fourth  
 5 classification to determine the call classification of the called  
 6 destination endpoint.

1 19. The method of claim 18 wherein the first  
 2 classification is for one of tone, energy, zero crossings, or  
 3 speech.

1 20. The method of claim 19 wherein the second  
 2 classification is for one of tone, energy, zero crossings, or  
 3 speech.

1 21. The method of claim 19 wherein the third  
 2 classification is for one of tone, energy, zero crossings, or  
 3 speech.

1 22. The method of claim 21 wherein the fourth  
 2 classification is for one of tone, energy, zero crossings, or  
 3 speech.

1           23. The method of claim 22 wherein the step of  
2 determining comprises the step of executing an inference  
3 engine.

1           24. The method of claim 23 further comprises the  
2 step of recording the received information for updating the  
3 inference engine.

1           25. The method of claim 23 wherein performing  
2 classification for speech comprises the step of executing a  
3 Hidden Markov Model.

1           26. The method of claim 23 wherein performing  
2 classification for speech comprises the step of determining  
3 words.

1           27. The method of claim 23 wherein performing  
2 classification for speech comprises the step of determining  
3 phrases.

1           28. A method for classifying a call to a destination  
2 endpoint, comprising the steps of:  
3           receiving information from the called destination  
4 endpoint;  
5           performing a tone classification of the received  
6 information;  
7           performing a energy classification of the received

8 information;  
 9 performing a zero crossing classification of the  
 10 received information;  
 11 performing speech classification of the received  
 12 information; and  
 13 executing an inference engine to determine a call  
 14 classification of the called destination endpoint from the tone,  
 15 energy, zero crossing, and speech classifications.

1 29. The method of claim 28 wherein performing  
 2 speech classification comprises the step of determining words.

1 30. The method of claim 28 wherein performing  
 2 speech classification comprises the step of determining  
 3 phrases.

1 31. The method of claim 28 further comprises the  
 2 step of recording the received information for updating the  
 3 inference engine.

1 32. Apparatus for implementing the steps of claim 17.

1 33. Apparatus for implementing the steps of claim 18.